Gender Affirmation

Considerations for Primary Care

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PIEDMONT HEALTH

Acknowledgements

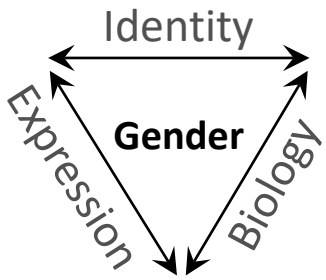
- Tyler McKinnish, MD

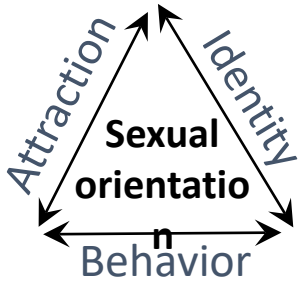
Learning Objectives

- Define common terms related to sex and gender
- Identify appropriate components of the history and physical exam for a trans* patient seeking gender care
- Identify cancer screening recommendations and intervals for transmen and transwomen
- Consider best mental and sexual health screening practices
- Describe the informed consent process for homrone tx
- Discuss regimens (agents, dose, frequency, and route)
- Discuss clinical and laboratory monitoring of hormone tx
- Provide appropriate referrals for additional care

Defining Gender

- A product of three spectra
  - Sexual orientation is separate





- Common terms
  - Cisgender
  - Transgender
  - Gender non-conforming
  - Genderqueer
  - Gender fluid
  - Another

HRC 2012

Language and Documentation

	Sexual Orientation	Gender Identity	
Don't Use These Terms	Homosexual Queer	Tranny Transsexual Transgender**ed** Transgender**s**	**Pre/Post-op** MtF or FtM Biological sex Natal sex
Use Any of These Instead	LGBTQIA+ Gay Lesbian Bi (or bisexual) Pan (pansexual) Ace (asexual) Queer <u>if mirroring patient/student</u>	Transman Transwoman Transgender person Trans* GNC, non-binary Sex assigned at birth (AFAB, AMAB)	

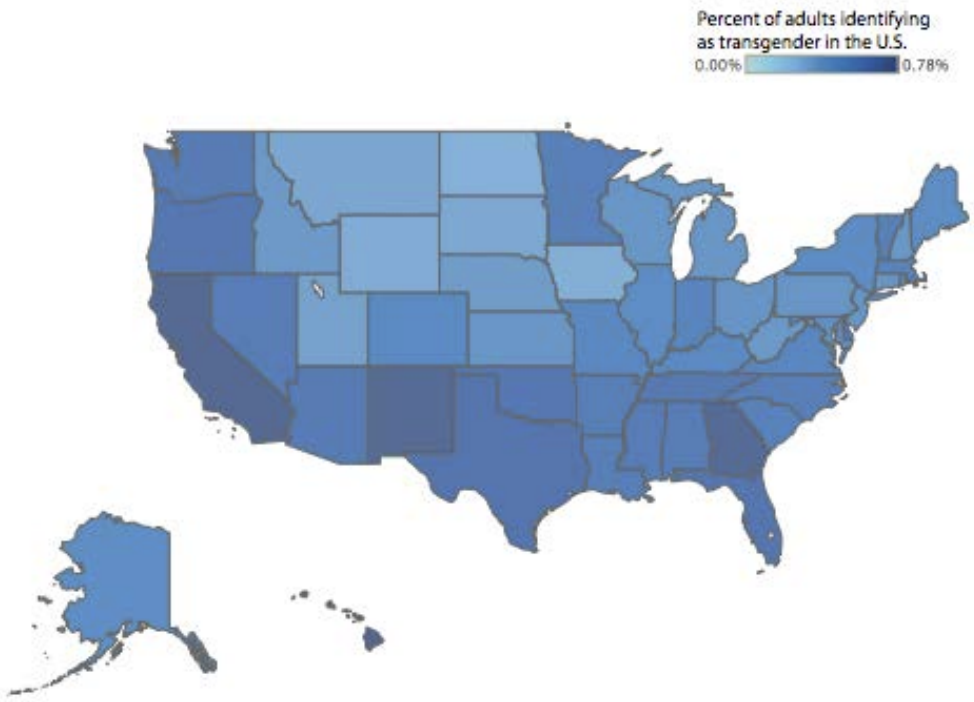
Pronouns

	Subject (Nominative)	Object (Objective)	Possessive
BINARY			
Male	He	Him	His
Female	She	Her	Hers
NON-BINARY			
They	They	Them	Theirs
Ze	Ze	Hir	Hirs
Spivak (1991)	e	em	eirs
Name-derived: "Charlie"	"C"	"C"	"C's"

Prevalence of Gender Expansive Identities

- Williams Institute suggests 1.4 million transgender adults in the US (0.6%)
  - Modeling of pooled BRFSS data
- Similar estimate in adolescents (0.7%)
  - Extrapolation of BRFSS

Figure 1. Percent of Adults Who Identify as Transgender in the United States



Flores et al 2016
Herman et al. 2017

Healthcare

In the past year:

1/3

At least one negative experience w/ a provider

23%

Avoided necessary care for fear of mistreatment

ONE FOURTH

Were denied insurance coverage of transition care

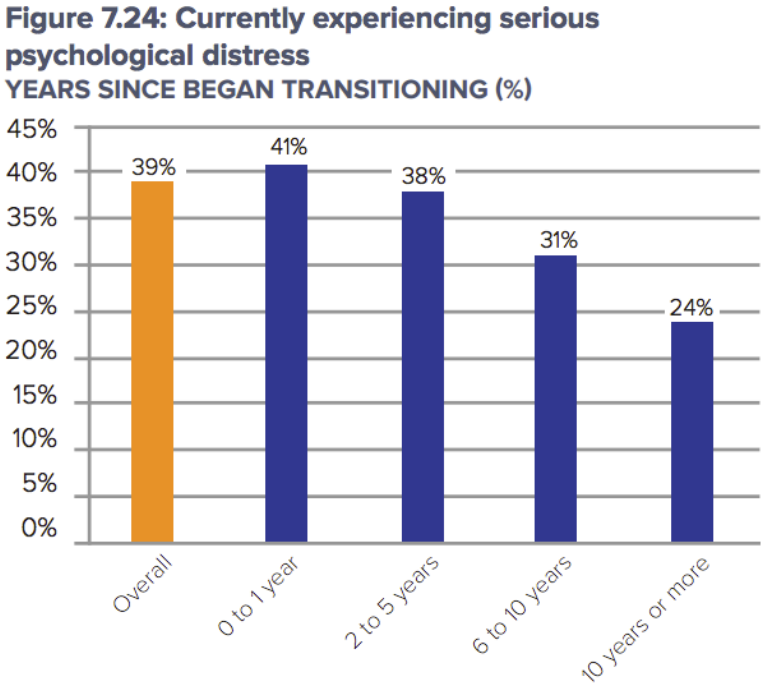
51%

Desire hormones but have not received any

James et al. 2016

Is Gender Affirmation Necessary…?

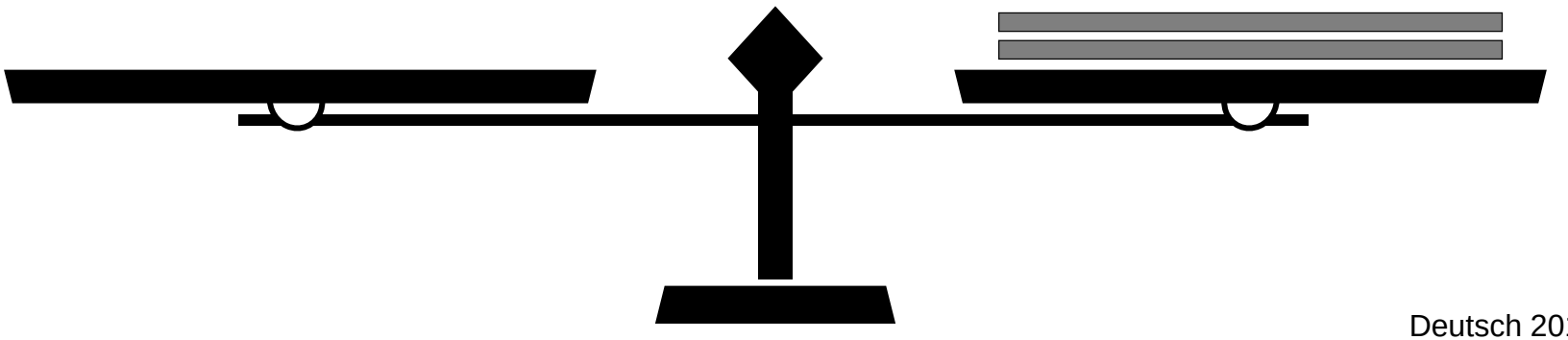
- Medical necessity per WPATH
  - Behavioral adaptation
  - Facial hair removal, soft-tissue fillers
  - Voice tx
  - Hormonal gender affirmation
  - Surgical gender affirmation
- Significantly improves QoL, scores of mental health, general well-being, social functioning
- No reported malpractice suits



Keo-Meier et al. 2014
Newfield et al. 2006
James et al. 2016

Two Models of Care

Traditional	Informed Consent
Emphasis on confirmation of dysphoria	Emphasis on risk/benefit, harm reduction
Requires MHP evaluation	Does not require MHP evaluation
Endocrine society guidelines	WPATH and UCSF



Deutsch 2012

Case Discussion

Case 1 - Elle

Elle, pronouns she, hers

- **CC:** “gender affirming” hormone therapy
- **HPI:** 25 year old adult (assigned male at birth) who has known she was different since kindergarten, identifies on transfeminine spectrum. Lives as a woman ~75% of time (is afraid to be out to family). Has not had previous gender affirming therapies. Seeking care now because new job = insurance.
- **PMH:** Generalized Anxiety Disorder as a teen, resolved
- **SH:** Exercises 30min/d 6x/wk, typical American diet, No tob/drugs, 7-10 EtOH drinks/wk, CAGE neg, PHQ-2 neg, lives alone and feels safe at home and work, not currently in a relationship but “casually” sexually active w/ 1 M friend using condoms 75% of time, versatile (insertive and receptive anal sex) + oral, HIV & urine gonorrhea and chlamydia testing was neg 6mo ago
- **FH:** HTN (father), pre-diabetes (mother)
- **PE:** VS WNL

Case 1 - Elle

What are the pertinent features of the history?

The History

- How does Elle identify?
- Presence & severity of dysphoria
- Efforts to transition
  - Behavioral, social, medical, surgical
  - Results and safety
  - Why now?
- Medical and psychiatric diagnoses
  - Controlled?
  - Hx of VTE, T2DM, CAD
- Thorough SH (PHQ-2, EtoH/Tob/drugs, healthy weight, sexuality, IPV/safety, unprescribed hormones, underground economy)

Gender Dysphoria in Adult (DSM-V)
At least 6mo marked incongruence between experienced and assigned gender w/ at least 2:
a. Incongruence between one's experienced/expressed gender and 1º/2º sex characteristics
b. Strong desire to be rid of 1º/2º sex characteristics
c. Strong desire for 1º/2º sex characteristics of other gender
d. Strong desire to be other/another gender
e. Conviction one has typical feelings and reactions of other gender
AND condition causes significant social, occupation, or other functional impairment
Specify if: **W/ DSD**
Specify if: **Post-transition** (lives full time, has ≥1 treatment)

Case 1 - Elle

What regimen of hormones would you prescribe to Elle?

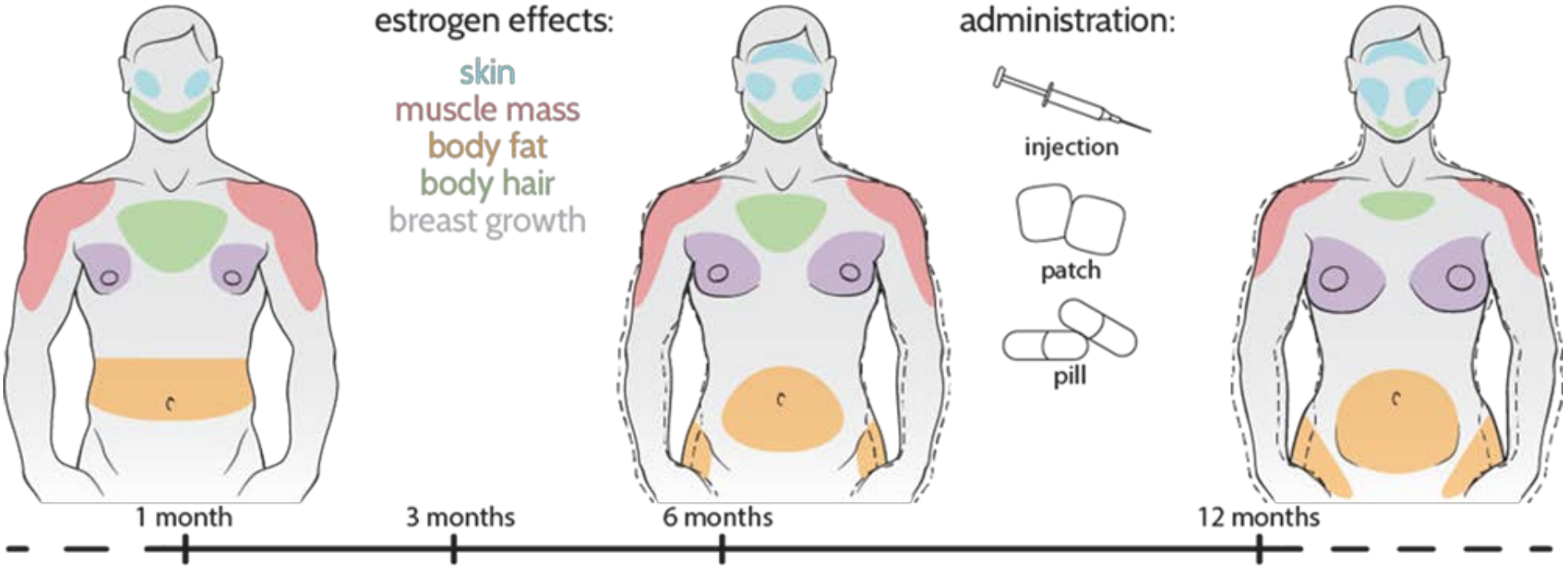
Feminizing Tx Regimens

Medication	Route	Low Dose	Initial Dose	Max Dose	Notes
17-B Estradiol	PO or sublingual	1mg/d	2-4mg/d	8mg/d	BID if >2mg
	Transdermal	50mcg	100mcg	100-400mcg	Preferred if VTE, CAD risk
Spironolactone	PO	25mg QD	50mg QD	200mg BID	May start spiro low to promote breast dev

Response Monitoring

- Many just use clinical outcomes
  - Guided by patient goals
  - Visits at 6wks, 3, 6, and 12mo
- Consider total testosterone (3, 6, and 12 mo)
  - Maintain <55ng/dL
- May measure estradiol
  - Should be ~100-200pg/mL (typical pre-menopausal level)

Response Timeline



WHAT	WHAT HAPPENS	WHEN IT STARTS	COMPLETE EFFECT
skin	softening of skin & decreased oil	3-6 months	unknown
muscle	decreased muscle mass & strength*	3-6 months	1-2 years
breast growth	breast tissue growth	3-6 months	2-3 years
body fat	body fat redistribution	3-6 months	2-5 years
hair growth	thinning & slowed hair growth	6-12 months	> 3 years
sex drive	decreased sex drive	1-3 months	1-2 years
sperm	decreased production	variable	variable
scalp hair	hair loss stops (no regrowth)	1-3 months	1-2 years

* significantly dependant on amount of exercise

luriechildrens.org

Case 1 - Elle

What would you predict the common side effects to be?

Side Effects

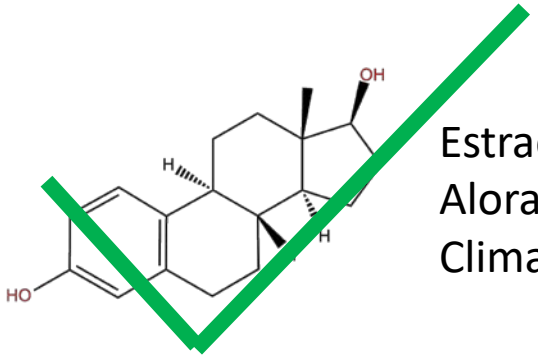
- Weight gain
- Migraine headaches
- Increased risk of venous thromboembolism
- Hyperprolactinemia
- Increased blood pressure
- Abnormal lipid changes and possible insulin resistance
- Infertility

Gooren et al. 2008
Hembree et al. 2009
Asscheman et al. 2011
UCSF 2016

VTE

- Literature is mixed, but suggests:
  1. Estrogen therapy is safe for gender affirmation
  2. Elevated VTE risk **attributable largely to ethinyl estradiol** and other synthetics
  3. Risk minimized by transdermal administration

Sprintec
Loestrin
Ovral
Etc.



Estrace
Alora
Climara

Cardiovascular Risk

- Longitudinal cohort studies show:
  - Increased BP and arterial stiffness
  - Non-significant decreased LDL (but also decreased size), increased HDL
  - Increased weight, visceral fat
  - No change in fasting glucose, decreased insulin sens.
- No increase in mortality from hormones
  - Higher mortality in transwomen due to suicide, HIV, CVD, drug use
  - Mortality (all cause, specific causes) in transmen not significantly different than gen pop
- Important to counsel patients about healthy lifestyle and diet

Elamin et al. 2010
Gooren et al. 2008
Asscheman et al. 2011

Laboratory Safety Monitoring

Baseline

Renal panel

3, 6, & 12 months

Renal panel (spiro)

Annually and PRN

Renal panel

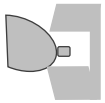
Per USPSTF Guidelines

A1c
Lipids

Screening and Counseling

SEXUAL HEALTH

CANCER



MENTAL HEALTH

Screening and Counseling

SEXUAL HEALTH

Screen for STIs at sites indicated by history. HPV vaccine if ≤26.

Screen for HIV once and repeat based on risk. Counsel about safer sex and offer **PrEP** (TDF-FTC 200mg/300mg QD) if high risk.

Counsel pts to use **barrier protection**

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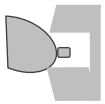

MENTAL HEALTH

Screening and Counseling

SEXUAL HEALTH

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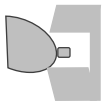


If ≥50 years old with at least 5-10yrs of feminizing hormones = **mammography q2yrs.**

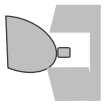
Screen per guidelines with **DRE**

MENTAL HEALTH

Screening and Counseling

SEXUAL HEALTH

CANCER



MENTAL HEALTH

Screen all patients for **tobacco**, **alcohol**, **drug use**, and **depression** as per guidelines. Counsel about **healthy weight**, monitor BMI.

Screen for **IPV** in all patients. Hold survivor organizations accountable.

Case 2 - Roberto

- **Roberto**
- **CC:** “feels sad, needs refill on hormones”
- **HPI:** 39 year old transman (assigned female at birth) who is feeling depressed. Feels his life started “falling apart” after a partner left and he lost insurance. Partner was male, had a good job but often used Roberto’s status as a transman as means of control. Was rarely physically violent. Has been on testosterone tx for almost 10yrs, no SE, needs a refill. PHQ9 score 17, no suicidal ideation.
- **PMH:** MDD as a teen, resolved
- **SH:** Runs 2-3x/wk, lifts at home, typical American diet. Occasional MJ, 5-9 EtOH drinks/wk, lives alone and feels safe at home. Occasionally exchanges sex with men for money, tries to use protection but can’t always, HIV & urine gonorrhea and chlamydia tests were negative 6mo ago
- **Gyn:** no prior pregnancies. Treated for chlamydia 2yrs ago. 1 period in the past 3 months

Masculinizing Tx

What would your work-up or Roberto include?

Laboratory Safety Monitoring

Baseline

CBC + UPT

3, 6, & 12 months

CBC

Annually and PRN

CBC

Per CDC Guidelines

HIV, GC, CT, syphilis, HCV

Per USPSTF Guidelines

A1c
Lipids

Normal range of CBC is male if amenorrheic

Masculinizing Tx

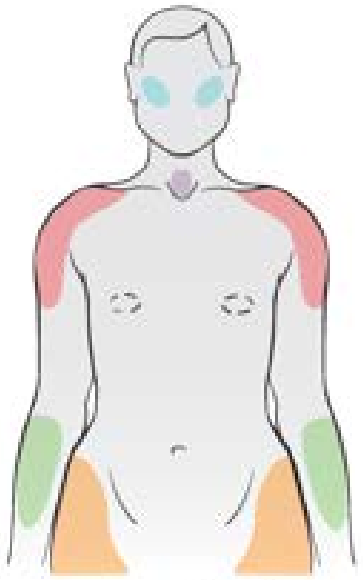
What would you prescribe to Roberto?

Masculinizing Tx Regimens

Meds	Route	Low Dose	Initial Dose	Max Dose	Notes
Testosterone*	IM/SQ	20mg/wk	50mg/wk	100mg/wk	SQ seems to work well, cause less fibrosis
Testosterone	patch	1-2mg qPM	4mg qPM	8mg qPM	Comes in 2&4mg
Testosterone	Gel 1%	12.5-25mg qAM	50mg qAM	100mg qAM	Apply to arm, shoulder, will slow release over day

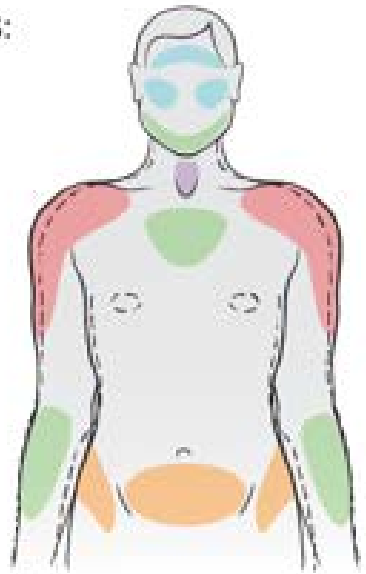
* Enanthate or cypionate

Timeline of Changes



testosterone effects:

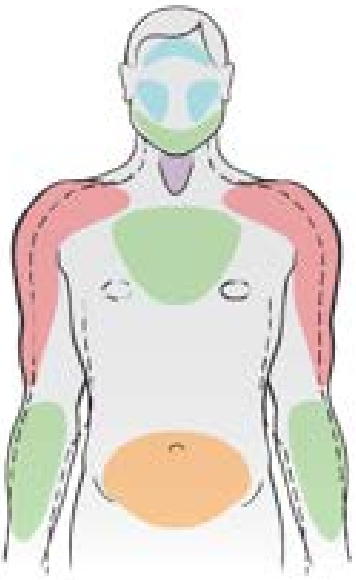
skin
muscle mass
body fat
body hair
voice change



administration:

injection

gel



WHAT	WHAT HAPPENS	WHEN IT STARTS	COMPLETE EFFECT
skin	increased skin oiliness & acne	1-6 months	1-2 years
muscle	increased muscle mass & strength*	6-12 months	2-5 years
voice pitch	voice pitch deepens	6-12 months	1-2 years
body fat	body fat redistribution	3-6 months	2-5 years
hair growth	facial & body hair growth	6-12 months	3-5 years
menses	monthly periods stop	2-6 months	not applicable
clitoris	enlargement (~ 0.5"-1")	3-6 months	1-2 years
scalp hair	male-pattern hair loss**	> 12 months	variable

* significantly dependant on amount of exercise

** dependent on age & genetics, may be minimal sex drive also increases

luriechildrens.org

Response Monitoring

- Many just use clinical outcomes
  - Guided by patient goals
  - Visits at 6wks, 3, 6, and 12mo
  - Titrate to amenorrhea
- Consider total T (mid-cycle) 3,6,12mo
  - Calculate bioavailable if results/SE inconsistent with dose

Case 2 - Roberto

What would you predict the common side effects to be?

Side Effects

- Mood changes
- Weight increase
- Atherogenic lipid profile
- Hypertension
- Insulin resistance
- Polycythemia
- Acne
- Male pattern baldness
- Infertility

Gooren et al. 2008
Hembree et al. 2009
Asscheman et al. 2011
UCSF 2016

Erythrocytosis/Polycythemia

- Check testosterone
  - Also check a peak level
- Short term: phlebotomy
- Long term:
  - Dose more frequently
  - Consider transdermal preparations

Screening and Counseling

SEXUAL HEALTH

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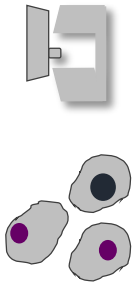
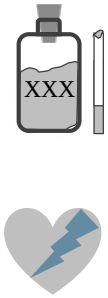


MENTAL HEALTH

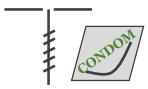


Screening and Counseling

SEXUAL HEALTH

Screen for STIs at sites indicated by history. HPV vaccine if ≤26.

Screen for HIV once and repeat based on risk. Counsel about safer sex and offer HIV **PrEP** if high risk.



Counsel pts to use **backup contraception**

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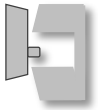

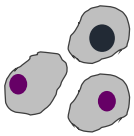

MENTAL HEALTH

Screening and Counseling

SEXUAL HEALTH

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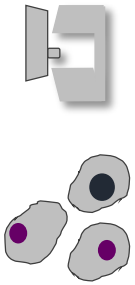


Screen transmen w/o mastectomy **as per guidelines**. Individualize for pts s/p mastectomy.

Offer cervical cancer screening **per guidelines** to all transmen who retain a cervix. Inform lab.

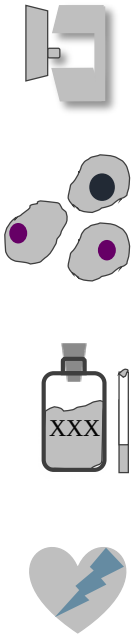
MENTAL HEALTH

Screening and Counseling

SEXUAL HEALTH

CANCER

MENTAL HEALTH



Screen all patients for **tobacco**, **alcohol**, **drug use**, and **depression** as per guidelines. Counsel about **healthy weight**, monitor BMI.

Screen for **IPV** in all patients. Hold survivor organizations accountable.

Fertility Preservation

- Options for transmen include:
  - Oocyte cryopreservation
  - Embryo cryopreservation
  - Ovarian tissue cryopreservation
- Options for transwomen include:
  - Sperm banking

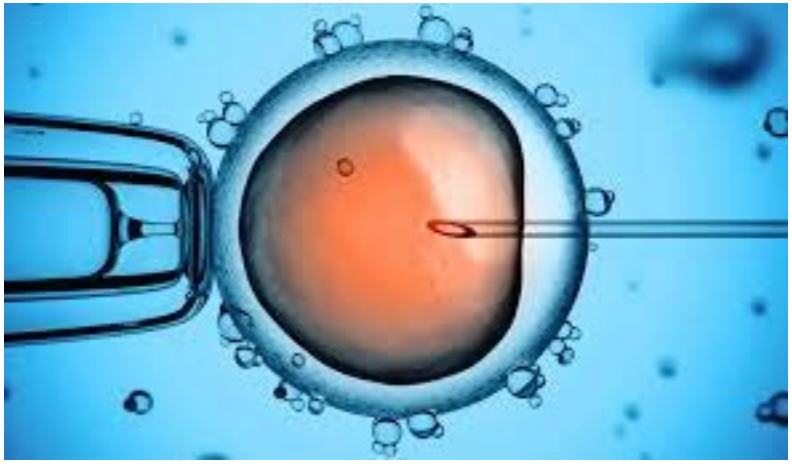


Figure 7.12: Procedures among transgender men

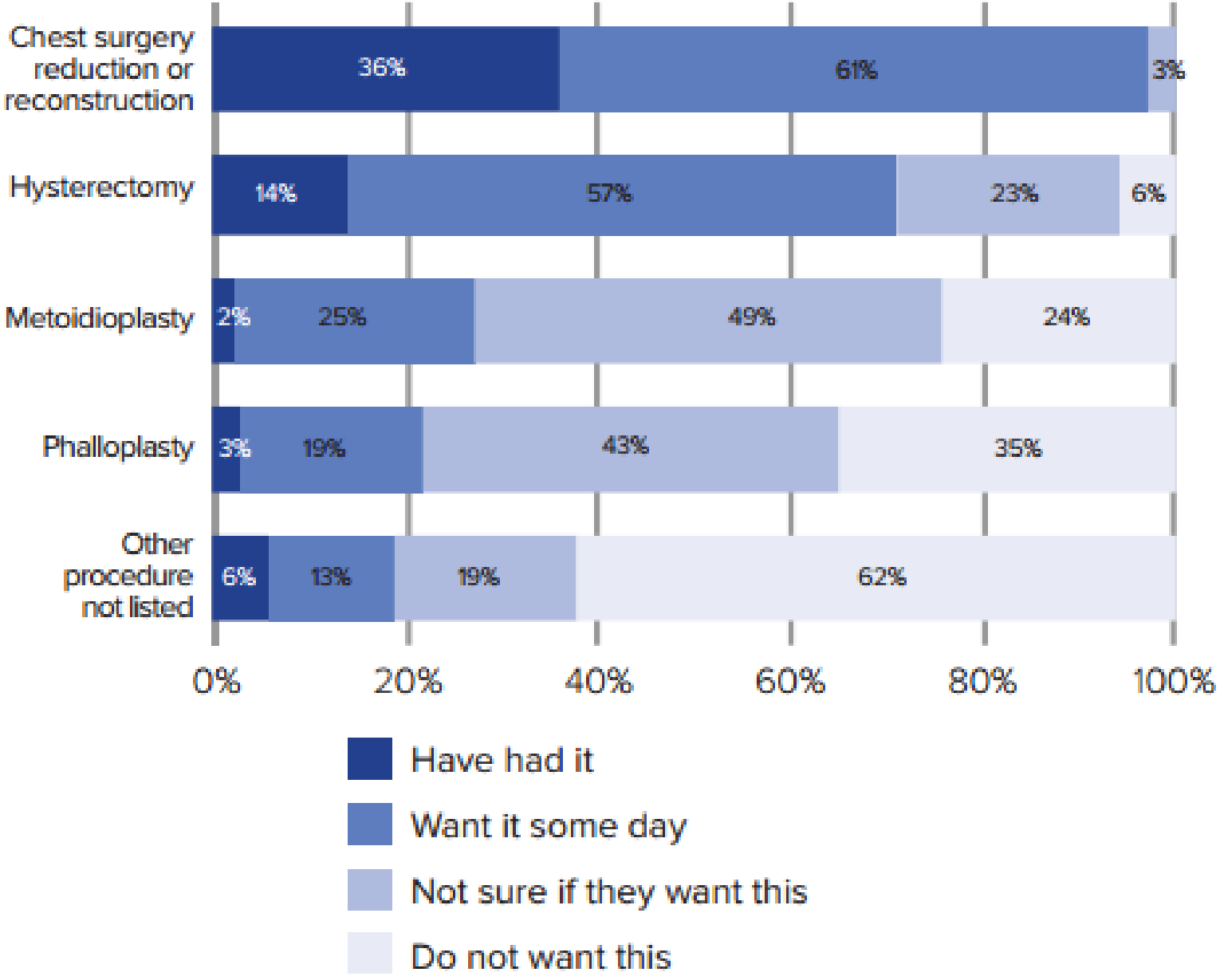
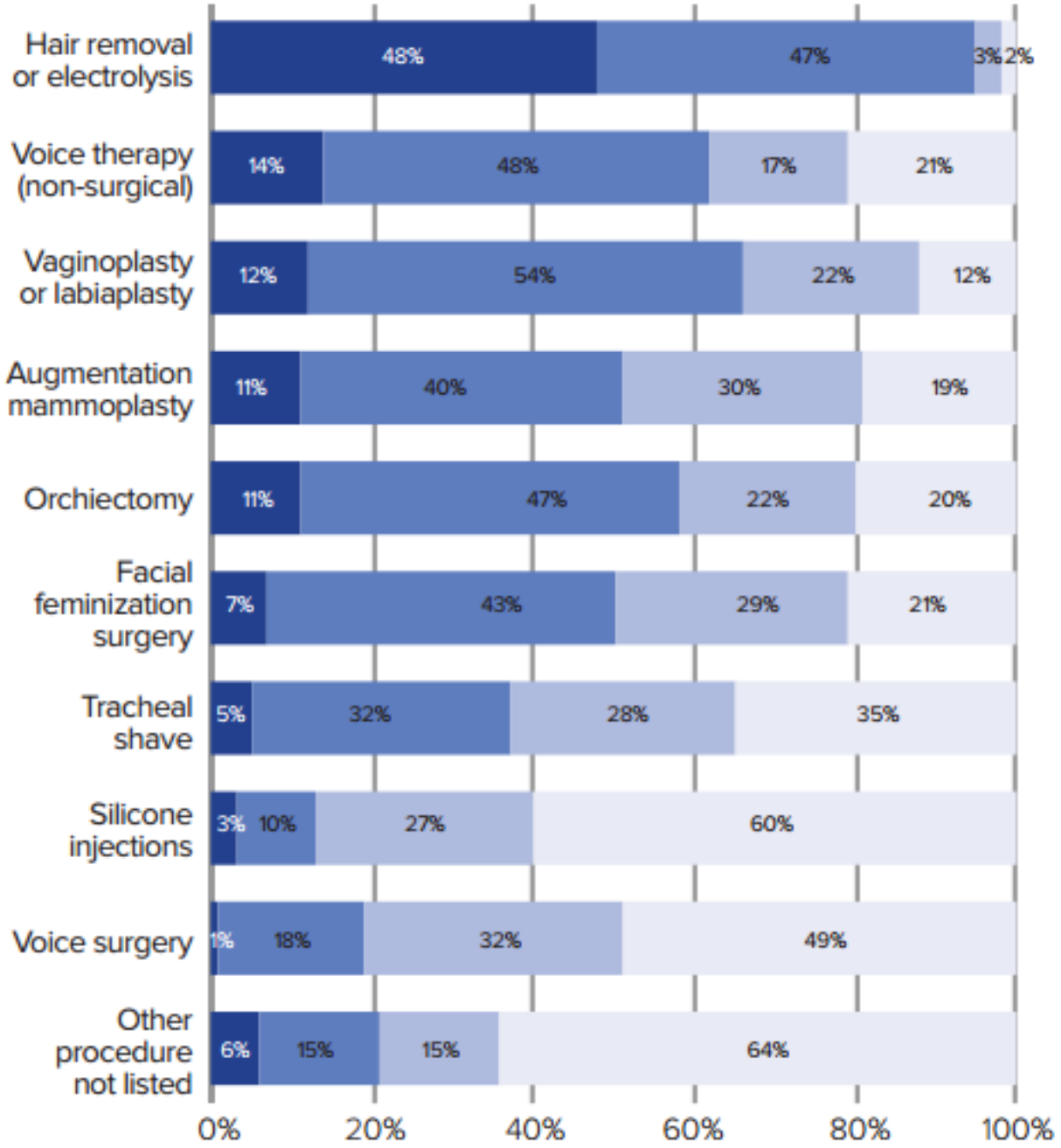
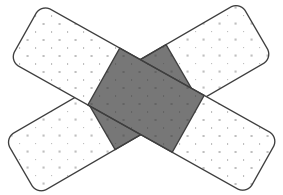


Figure 7.14: Procedures among transgender women



Referrals

- WPATH SOC 7 requires referrals for surgery
- Top surgery: 1 referral
  - Mastectomy, augmentation mammoplasty
- Bottom surgery: 2 referrals
  - Hysterectomy ± BSO, metoidioplasty, phalloplasty, etc.
  - Orchiectomy, vaginoplasty, etc.
- Arrange voice therapy, facial plastic surgery (e.g. tracheal shave, soft tissue fillers)
- Consider referral for fertility preservation



Post-operative Considerations

Care of the Neovagina

- STI
- Cancer screening
- Neovaginal discharge
- Routine dilation

Care of the Neophallus

- Dysuria
  - Urethral stricture
  - Infxn
- STI
- Erectile implant

Many transmen retain a vagina, cervix

Summary and Recommendations:

- Ask and use preferred name and pronouns
- Create a welcoming environment
  - Inclusive forms
  - Posters, signs, pamphlets, badge pins, stickers
  - Staff training
- Postpone invasive components of exam
- Interpret labs with care

Summary and Recommendations:

- Informed consent is key
  - Physician role is not “the gatekeeper”
- Consider referral to affirming Mental Health Provider
- Control concurrent psychiatric and medical problems
- Appropriate primary care:
  - Fertility preservation
  - HIV and STI
  - Cancer screening
  - Depression, substance abuse
  - Healthy weight
  - Intimate Partner Violence

Resources

- Referrals in NC
  - Mind Path GSDI local list
- Clinical info
  - UCSF Primary Care Protocols
  - Transline: Free Provider to Provider consultation
- Learning resources
  - National LGBT Health Ed Center modules